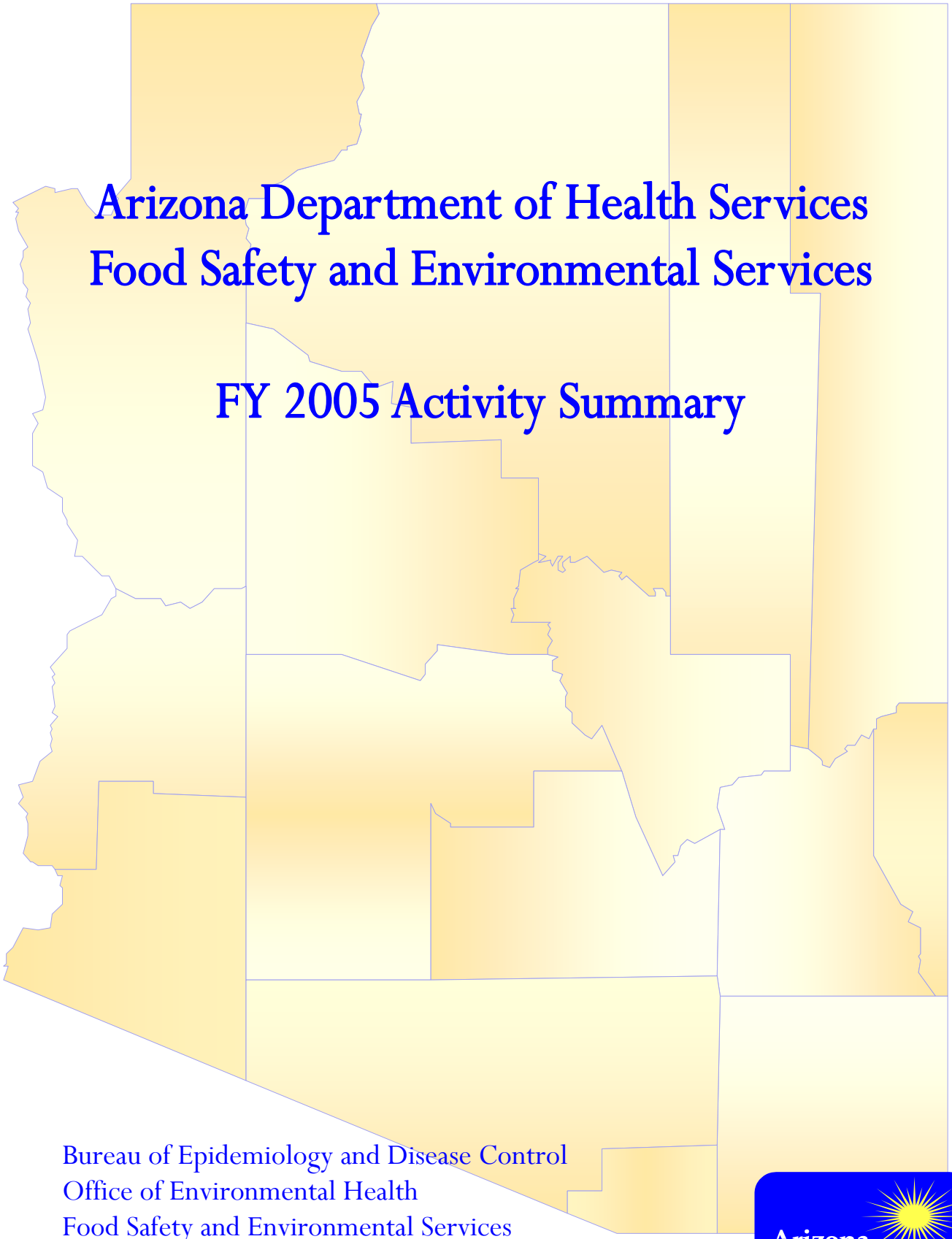

Arizona Department of Health Services
Food Safety and Environmental Services

FY 2005 Activity Summary

Bureau of Epidemiology and Disease Control
Office of Environmental Health
Food Safety and Environmental Services

December 2005

Arizona Department of Health Services

Janet Napolitano, Governor
State of Arizona

Susan Gerard
Director, Arizona Department of Health Services

ARIZONA DEPARTMENT OF HEALTH SERVICES
Bureau of Epidemiology and Disease Control

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Executive Summary

The Arizona Department of Health Services (ADHS) administers a statewide public health sanitation program for food safety, bottled water, public accommodations, e.g., hotels and motels, children's camps, campgrounds, public schools, and public and semi-public bathing places. ADHS has delegated most of the public health sanitation program responsibilities to each of the 15 Arizona county health departments in order to most effectively accomplish its mission objectives.

Individuals that carry out the provisions of the program must be licensed as a Registered Sanitarian in the State of Arizona or, under specific conditions, a Sanitarian Aide working under the direct supervision of an Arizona Registered Sanitarian. There were 163.5 Registered Sanitarians and 27 Sanitarian Aides employed with the 15 Arizona county health departments and ADHS that were engaged in the public health sanitation program in Arizona during FY 2005.

The following highlights FY 2005 activities.

- One hundred sixty three point five (163.5) Arizona Registered Sanitarians and 27 Sanitarian Aides at ADHS and the 15 Arizona county health departments conducted 97,322 inspections at 48,490 regulated facilities in Arizona.

- There were 30,313 regulated food establishments in Arizona during FY 2005. A total of 71,492 food safety inspections, i.e., routine, re-inspection, and pre-operational, were conducted at those establishments during FY 2005.

- Eight Arizona counties continued to participate in the FDA's Voluntary National Retail Food Regulatory Program Standards. The program is designed to foster national uniformity among regulatory programs responsible for retail food protection. The eight counties participating are Coconino, La Paz, Maricopa, Pima, Pinal, Yavapai, Mohave and Greenlee.

- ADHS representatives conducted on-site audits of each county's food safety program during February – April 2005. A report detailing the audit findings will be produced during FY 2006 as required by a Health Arizona 2010 objective.

- Sixty-five (65) Arizona Registered Sanitarians and food safety personnel completed the three-day U.S. Food and Drug Administration Food Code Course enhancing food safety capacity and knowledge in Arizona.

1.0 Introduction

The Food Safety and Environmental Services Section of the Office of Environmental Health, Arizona Department of Health Services (ADHS), has responsibility for administration and oversight of food safety and environmental sanitation monitoring and enforcement in the State of Arizona in accordance with State law. The mission of the Food Safety and Environmental Services Section is:

> *To prevent and control human illness related to the transmission of infectious agents or toxic substances in food and water, and to prevent disease transmission due to unsanitary conditions in hotels and motels, trailer coach parks, bathing places, group homes, behavioral health centers, adult foster care homes and children's camps.*

The Food Safety and Environmental Services Section administers a statewide public health sanitation program which includes food safety, bottled water, public accommodations, e.g., hotels and motels, children's camps, campgrounds, public schools, and public and semi-public bathing places. The program performs epidemiological investigations, interprets public health sanitation laws and rules for Arizona county health departments, provides training and educational opportunities for the counties, and establishes and maintains liaisons with federal and local agencies.

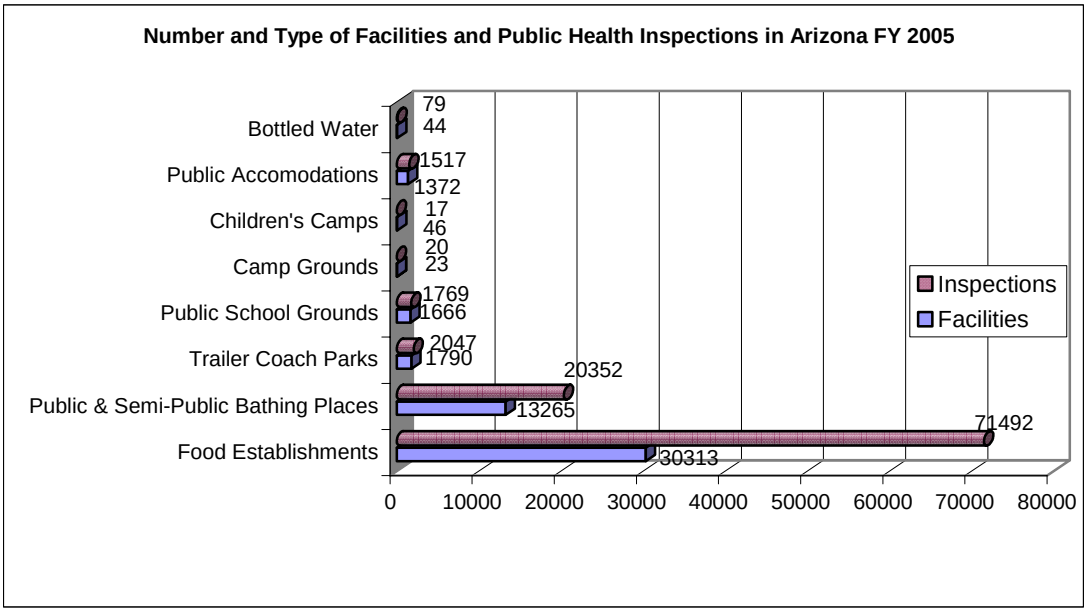
Arizona Department of Health Services
150 Building
Phoenix, Arizona

2.0 FY 2005 Activities

ADHS has delegated most of the public health sanitation program responsibilities to each of the 15 Arizona county health departments in order to most effectively accomplish its mission objectives. The delegation of responsibilities allows local governments to decide the level and cost of the services they wish to provide. Local control makes it easy for the public to interact with their government.

Counties accepting delegated responsibilities are required to perform duties in accordance with conditions outlined in their specific delegation agreement with ADHS. County health departments must submit annual reports summarizing their program activities as required by their delegation agreements.

Facilities regulated by the state and counties include various food establishments, bottled water facilities, public accommodations, e.g., hotels and motels, children's camps, campgrounds, public school grounds, and public and semi-public bathing places. Personnel that carry out the provisions of the program must be licensed as a Registered Sanitarian in the State of Arizona or, under specific conditions, a Sanitarian Aide under the direct supervision of an Arizona Registered Sanitarian. One hundred sixty three point five (163.5) Arizona Registered Sanitarians and 27 Sanitarian Aides at the 15 Arizona county health departments and ADHS conducted 97,322 inspections at the 48,490 regulated facilities in Arizona during FY 2005.



2.1 Food Safety

2.1.1 Inspection Programs

Restaurants, food markets, mobile food units, food processors, prison and jail eating facilities, food warehouses, bakeries, and school cafeterias are routinely inspected to evaluate food safety practices in these establishments.

There were 30,313 regulated food establishments in Arizona during FY 2005. State and county sanitarians and sanitarian aides conducted 71,492 food safety inspections, i.e., routine, re-inspection, and pre-operational, at these facilities during FY 2005.

A classification scheme categorizes food establishments by the complexity of the food service operations. More complex operations conduct a greater variety of food service activities and may require more frequent inspections in order to ensure that all food safety measures are being followed. The classification scheme is as follows:

Complex:

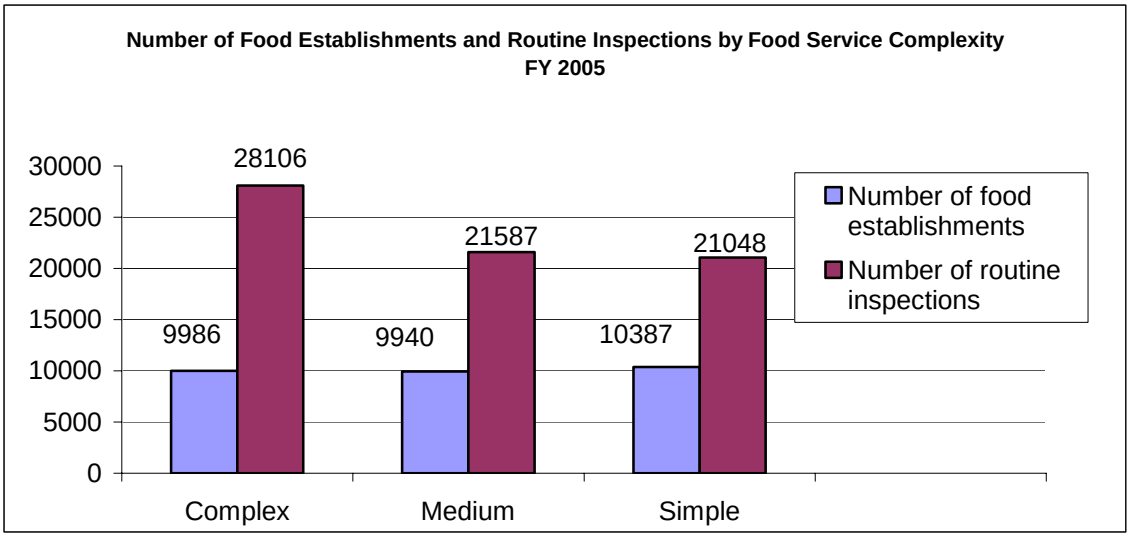
- The facility prepares and holds hot or cold food for more than 12 hours before serving; and/or
- The facility cooks and cools a significant number of foods during the food handling process; and/or
- The facility prepares food for off-site service; and/or
- The facility vacuum packs food; and/or
- The facility serves a highly susceptible population.

Moderate:

- The food prepared in the facility from raw ingredients requires minimal assembly; and/or
- Hot or cold food preparation in the facility is restricted to same day service; and/or
- Foods requiring preparation in the facility are from approved processing facilities.

Limited:

- Only pre-packaged potentially hazardous foods are available or sold; and/or
- The potentially hazardous foods served are commercially pre-packaged in an approved food processing facility; and/or
- The facility only has limited preparation of potentially hazardous foods and beverages; and/or
- The facility only serves beverages.



The separate category for mobile units was merged this year into one of the three categories above. Navajo County's 500 inspections were excluded because they were not categorized. Pima County's 251 inspections in an "unknown" category were also excluded.

2.1.2 Enforcement

The aim of the food safety inspection program is to achieve compliance with state food safety requirements without resorting to compliance proceedings and enforcement actions. Unfortunately, these actions are sometimes necessary to achieve compliance with minimum requirements. During FY 2005, 778 enforcement actions were taken at food establishments in Arizona. Statewide, compliance proceedings or enforcement actions were taken at approximately 2.6% of food establishments.

2.1.3 Food Safety Activities in Arizona

- ADHS sponsored a three-day Food Code Course presented by the U.S. Food and Drug Administration (FDA). The course included training on the Food Code and the public health rationale for the Code. The course was designed to prepare regulators on the application of the Food Code in retail food establishments. Sixty-five (65) individuals from 14 of the 15 Arizona counties, ADHS, FDA, Indian Health Service, Centers for Disease Control and Prevention, Gila River Indian Community, Arizona State University, The University of Arizona, Tuba City Regional Health Care Corporation, Salt Lake Valley Health Department, and U.S. Public Health Service participated in the course.

- Eight Arizona counties continued to participate in the FDA's Voluntary National Retail Food Regulatory Program Standards. The program is designed to foster national uniformity among regulatory programs responsible for retail food protection. The eight counties participating are Coconino, La Paz, Maricopa, Pima, Pinal, Yavapai, Mohave and Greenlee.

- Representatives from ADHS, La Paz, Maricopa, Pinal and Yavapai counties participated in the first ever FDA Voluntary National Retail Food Regulatory Program Standards Audit Course in Dallas, Texas. The course was supported by FDA funding.

- Three counties were audited by ADHS to verify the status of their Program Standards. The counties included: Maricopa (Standard 7), Yavapai (Standards 2, 7 and 9) and Pinal (Standards 2, 7 and 9).

- The Azsafefood Listserv developed in collaboration between ADHS and the University of Arizona Cooperative Extension Service maintains over 135 members. The Listserv was designed to serve as an easily accessible forum for individuals interested in food safety issues in Arizona. The majority of members are Arizona Registered Sanitarians from ADHS and the 15 Arizona county health departments. The Listserv has also served as an important communication tools to boardcast important food recall, food tampering, and related notices to Arizona county health departments.

- ADHS Office of Environmental Health publishes and distributes a bimonthly E-Newsletter through the Azsafefood Listserv and the ADHS web site targets individuals interested and involved in public health sanitation issues in the State of Arizona.

2.1.4 Food Safety Update

In response to a statutory change that shifts regulatory authority for milk at the retail level to ADHS from the Arizona Department of Agriculture, proposed rules where filed with the Secretary of State. The proposed rules align them with the statutory change. The rule making process is anticipated to be complete by early calendar year 2006.

Healthy Arizona 2010 County Audits

One of the objectives of Healthy Arizona 2010 is to "reduce the prevalence of foodborne illnesses in Arizona by reducing risk factors for food borne illness in restaurants and retail food establishments 25% by 2010". One of the strategies to address this objective is to "complete audits by 2005 of all county health departments to determine the effectiveness of food safety programs."

ADHS representatives conducted audits of each county's food safety program during February – April 2005. A report detailing the audit findings will be produced during FY 2006 as required by the Healthy Arizona 2010 objective. The completed on-site audit schedule is provided in the table below.

Healthy Arizona 2010
Arizona County Food Safety Program Audit Schedules

County/City	Date
Apache/St. John's	April 19, 2005
Cochise/Bisbee	February 10, 2005
Coconino/Flagstaff	March 10, 2005
Gila/Payson	March 15, 2005
Graham/Safford	February 1, 2005
Greenlee/Clifton	February 2, 2005
La Paz/Parker	February 28, 2005
Maricopa/Phoenix	February 25, 2005
Mohave/Kingman	February 15, 2005
Navajo/Show Low	April 20, 2005
Pima/Tucson	March 17, 2005
Pinal/Florence	April 7, 2005
Santa Cruz/Nogales	March 29, 2005
Yavapai/Prescott	April 29, 2005
Yuma/Yuma	March 8, 2005

2.1.5 Food Biosecurity

ADHS implemented a statewide voluntary food biosecurity program in 2002 to increase awareness about food biosecurity. On-site visits were made during FY 2005 by ADHS representatives to each of the 15 Arizona counties to assist them in developing and delivering a local food biosecurity program. ADHS personnel provided presentations and training sessions addressing the importance of vulnerability assessments, biosecurity procedures, and emergency response plans. Assessments were performed on biosecurity procedures already in place for produce warehouses and a large drinking water distribution system in Arizona. Guidance and educational materials were provided during on-site visits. ADHS will continue to assist in the development and delivery of the voluntary food biosecurity program tailored to meet each county's needs.

Specialized training sessions were offered for sanitarians and bioterrorism personnel in Navajo, Cochise and Coconino counties. These presentations addressed the importance of vulnerability assessments, biosecurity procedures and emergency response plans. The Yuma Bioterrorism Preparedness Program in collaboration with ADHS personnel delivered an agroterrorism workshop for the produce growers and pesticides applicators in Yuma County. The 4-hour workshop focused on preparedness, recognition, response and recovery for the possibility of an agroterrorism event.

ADHS personnel attended several training courses related to emergency response following a radiological, biological or chemical incident having an impact on food and water supplies. These trainings included: Emergency Response to Domestic Biological Incidents, Radiation Monitoring, Radiation Emergency Response, Emergency Response to Threats of Intentional Contamination of Public Water Supplies, EPA- Hazardous Materials Incidents Response Operations, and FEMA - National Incident Management System.

Open lines of communication and a solid working relationship were established with other state and federal agencies involved in the protection of food and water supplies from intentional contamination including: Arizona Department of Environmental Quality, Arizona Department of Agriculture, Arizona Department of Education, Arizona Food Safety Task Force, Office of Homeland Security and Food and Drug Administration. Contacts were established with the Western Institute on Food Safety and Security from the University of California- Davis.

Efforts will be directed at encouraging operators of food establishments and school foodservice personnel to implement biosecurity procedures and to create individualized emergency plans. Training sessions, conferences, tabletop exercises and scenario-driven discussions will be presented in the next fiscal year to expand the expertise in food biosecurity in Arizona.

2.1.6 Foodborne Illness Outbreaks in Arizona, 2004: Excerpt from the ADHS Office of Infectious Disease Services, Infectious Disease Epidemiology 2004 Annual Report

Arizona Department of Health Services
State Laboratory
Phoenix, Arizona

The Arizona Department of Health Services conducts surveillance for foodborne illnesses and other enteric diseases and helps the county health departments conduct additional investigations of disease outbreaks. Environmental investigations, including a focused inspection, are conducted when

gastrointestinal diseases are suspected to be associated with a foodborne illness. When a link between foodborne illness and a food establishment is made a detailed investigation is conducted to determine the source.

Background

Foodborne illnesses are a widespread public health problem with an estimated 76 million cases and 5,000 deaths occurring each year in the United States. Health officials in Arizona have several different mechanisms for identifying outbreaks: routine surveillance of reportable diseases and investigations of these cases to identify common exposures and clinical symptoms; routine testing, sub typing, and comparison of enteric isolates including using advanced molecular identification techniques such as pulsed field gel electrophoresis (PFGE) to detect matching or possibly linked cases; and public reports of suspected foodborne illness to their local health department using foodborne illness hotlines.

Definitions:

Confirmed Foodborne/Waterborne Outbreak: A confirmed foodborne illness outbreak is an incident or exposure in which two or more persons experience a similar illness after ingestion of a common food, water source, or meal and epidemiologic evaluation implicates the item was the source of illness. Outbreaks may or may not be laboratory-confirmed. Waterborne outbreaks may be associated with drinking water or recreational water. Confirmed outbreaks may be classified into the following categories: 1) Laboratory-confirmed: Outbreaks in which laboratory evidence of a specific etiologic agent is obtained, 2) Epidemiologically-defined: Outbreaks in which clinical and epidemiological evidence define a likely agent, but laboratory confirmation is not obtained, and 3) Outbreak of undetermined etiology: Outbreaks in which laboratory confirmation is not obtained and epidemiologic evidence cannot clearly define an agent.

Probable Foodborne/Waterborne Outbreak: A probable foodborne illness outbreak is defined as an incident or exposure in which two or more persons experience a similar illness after ingestion of a common food item or water source, and a specific item is suspected, but person-to-person transmission or other exposures cannot be ruled out. ADHS is working to develop an Arizona foodborne illness hotline to improve identification of enteric illness in individuals who may not be clinically diagnosed. Healthcare providers also report suspected foodborne illness outbreaks when they see an unexpected number of patients with gastrointestinal illness. Restaurants, daycare providers, schools, and healthcare facilities, e.g., hospitals, long-term care facilities, may also report outbreaks to Arizona's local and state health departments.

Norovirus continues to be major cause of gastrointestinal outbreaks in Arizona with 17 confirmed outbreaks during 2004. A study by the Centers for Disease Control and Prevention (CDC) found that norovirus was detected in 93% of outbreaks of nonbacterial gastroenteritis. The majority of norovirus outbreaks in Arizona are thought to be spread via person-to-person transmission. Additionally, ill food workers handling ready-to-eat items such as sandwiches, drinks, and salads can also cause outbreaks of norovirus. Prevention of further disease transmission occurs by encouraging proper handwashing techniques, minimizing bare-hand contact with ready-to-eat items, removing environmental contamination, and excluding ill employees from work until 72 hours after recovery.

Salmonella was the second-most common cause of gastroenteritis clusters in Arizona during 2004, causing three documented foodborne outbreaks. One outbreak was associated with food served to patrons at a restaurant, while the other two were linked to food that was catered for events. The cause of restaurant and catered outbreaks can be difficult to ascertain since several factors may be involved, including infected food handlers, cross-contamination of raw and ready-to-eat food items, environmental

contamination, consumption of undercooked foods of animal origin, or inadequate cooking, hot holding, cooling, and reheating of multiple food items.

Bacterial intoxication caused by such pathogens as *Clostridium perfringens*, *Bacillus cereus*, and *Staphlyococcus aureus* was also an important cause of foodborne clusters in 2004. These outbreaks often lack laboratory confirmation since laboratory tests are unable to detect the bacteria and toxin, as they are short-lived in the stool of ill individuals. Commonly identified factors leading to bacterial intoxications are improper time and temperature control of potentially hazardous food items such as meat, rice and sauces.

Confirmed Foodborne Illness Outbreaks

A. Possible Bacterial Intoxication Outbreak Among Students at Day School, April – Pima County
On April 30, 2004 the Pima County Environmental Health Department received a call from an elementary school in Pima County after several students became ill with nausea, vomiting, diarrhea, cramps, and headache on April 28th and 29th. The Pima County Health Department initiated an investigation to identify the source of infection and compiled a questionnaire regarding symptoms and menu items consumed during the week of April 26th. Questionnaires were administered to classrooms; each child and faculty member responded to the questions. Of the 140 individuals interviewed, 28 met the case definition of vomiting or diarrhea and one or more of the following: nausea, cramps, fever, and headache. The average age of respondents was 14, with a range of 8 years to 45 years of age. An analysis of the food data revealed two lunch items as a possible source of illness. Both the bean and cheese "burro" and the tortilla chips were shown to be significantly associated with illness. However, after controlling for persons that also ate the bean and cheese burro, the tortilla chips lost their statistical significance. The average incubation period of those that became ill after lunch on the 27th was 12 hours, with a range of 6 to 35 hours. The average duration of illness for the cases was 24 hours. Since no food samples or clinical specimens were available for laboratory testing, a causative agent was not identified. *Clostridium perfringens* intoxication was the suspected cause of illness given the short incubation period (6-24 hours) and short duration of illness (24 hours or less). Although this bacterium is often associated with improper time and temperature control of food items, inspections of the lunch vendor found that the beans in the burros had been cooked and cooled appropriately. However, the burros were prepared offsite and delivered to the school, presenting the possibility for inappropriate handling during delivery.

B. Norovirus Outbreak Among Diners at Buffet Restaurant, May – Maricopa County
On Friday, May 21, 2004, Maricopa County Environmental Health Services (MCEHS) received three separate complaints regarding a local buffet restaurant. All three complainants reported eating at the restaurant on May 18th, 2004. One of the complaints was from an attendee of a school fundraiser held at the restaurant. Subsequently, the school reported that approximately 53 of the individuals who attended this event developed gastrointestinal symptoms. School officials did not provide a list of attendees, but ill individuals were instructed to call the health department. Cases who phoned the health department were interviewed regarding their symptoms and exposures. According to these interviews, the ice cream and/or yogurt dispensed from the soft serve machine at the restaurant appeared to be associated with infection. This association was identified epidemiologically prior to MCEHS inspection at the restaurant, allowing for the collection of food samples from the soft serve machine and ice cream/yogurt containers. Testing of these samples depicted evidence of bacterial contamination, notably in samples collected from previously unopened containers. MCEHS inspectors also noted that six employees called in sick between May 2nd and May 21st. Three of those employees worked on May 18th. Of the employees experiencing gastrointestinal symptoms, onset was suspected to be after May 18th. In addition to food testing, stool specimens were collected by the county health department to determine the etiologic agent. One of the stool specimens collected tested positive for norovirus. While bacterial contamination identified in the food sample may be indicative of improper handling or disinfection procedures, the cluster of illnesses

may also have been caused by one or both pathogens. There is some variation in incubation times suggesting that bacterial intoxication may have occurred in addition to the identified norovirus infections. Bacterial intoxication is extremely difficult to determine from testing of stool specimens. In addition, two more complaints of illness concerning this restaurant were received on May 24th and June 9th by the county health department. The facility was re-inspected by MCEHS and additional food samples from the soft serve machine were obtained. This second batch of samples also showed high levels of bacterial contamination. After visually inspecting detailed cleaning of the machine, tests from later samples were within normal limits.

C. Salmonella Outbreak Associated With Consumption of Shrimp Cocktail at Restaurant in Mexico, June – Mexico

On July 22, 2004, eight *Salmonella enteritidis* isolates, collected between June 24, 2004 and July 10, 2004, were matched by PFGE, suggesting a common exposure. Shortly after this discovery, the foodborne branch of CDC notified ADHS that the Salmonella Outbreak Detection Algorithm (SODA) maintained by the CDC detected an increase in the number of positive cases of *S. enteritidis*. A total of 20 *S. enteritidis* isolates, collected, between June 24 and July 12 were found to have the same PFGE pattern. These cases were distributed among several counties: 12 in Maricopa, 1 in Pinal, 3 in Pima, 1 in Coconino, 1 in Yavapai, and 1 in Navajo County. County health department interviews revealed that many of the cases traveled to Mexico during the 1-7 days prior to their onset of illness, the incubation period for *Salmonella*. ADHS incorporated this information into a more focused questionnaire including information on hotels and meals consumed in Mexico, and re-interviewed cases. These interviews revealed that 18 of the 20 identified cases had traveled to Rocky Point, Mexico, between June 1 and July 5. In addition, 10 of these 18 cases consumed shrimp at various restaurants, with the majority (70%) specifically recalling consumption of shrimp cocktail. Since the suspected food was served at restaurants outside of the United States, further investigation into the exact source of the infection could not take place.

D. Salmonella Outbreak Among Conference Attendees, August – Maricopa County

Reports were received from the Wisconsin and Oregon state health departments regarding two cases of *Salmonella oranienburg* that attended a conference in Maricopa County during the first week of August. The Maricopa County Department of Public Health (MCDPH) conducted an inspection of the facility and obtained information about the conference. Meanwhile, the California State Health Department called to report a third case of *S. oranienburg* in a California resident who also attended the conference in Arizona. Upon further investigation by the MCDPH and Maricopa County Environmental Health Services (MCEHS), additional cases of illness were reported among conference attendees. According to the company holding the conference, an informal e-mail group of people reporting illnesses identified approximately 18 conference attendees with gastrointestinal symptoms. Approximately 500 people nationwide attended the conference in Arizona and additional case finding measures were initiated. An inspection completed by MCEHS did not find any food code violations at the conference center facilities and no ill employees documented. MCEHS also obtained a menu of the foods served by the facility throughout the entire conference. Since the outbreak involved people from multiple states, the investigation was completed by ADHS. The PFGE patterns on the three *Salmonella* specimens from Wisconsin, Oregon, and California revealed that all three matched. These results supported the theory that a common source outbreak of *Salmonella* had occurred. Interestingly, a review of the PFGE database at the laboratory did not find any results matching the patterns seen in the three conference attendees from other states. ADHS verified foods consumed during the conference and obtained a list of attendees from the conference organizers. This information was used to develop a questionnaire and a case-control study was initiated. Telephone interviews were conducted on all individuals reporting illness. In addition, controls were randomly selected and interviewed from the list of 500 attendees. Additional cases were identified during control interviews; any controls matching the case definition were classified as cases and additional controls were enrolled. A total of 30 cases and 50 controls were identified during interviews.

Survey data were analyzed to identify common patterns in onset dates and food consumption. The majority of those cases reported onset dates the second day of the conference. Since the incubation period for *Salmonella* generally ranges from 18 to 72 hours, this finding indicates that the exposure probably occurred during the single meal served the first day of the conference. However, statistical analysis of the foods consumed at this meal did not reveal any item as significantly associated with illness. Since the identification and investigation of this cluster occurred over a month after the onset, recall and interviewer bias may have impacted the results.

E. Salmonella Outbreak Associated With Wedding Reception, October – Yuma County

During the last week of October 2004, a Yuma County resident called the local county health department to report an illness after attending a wedding reception on Friday, October 22, 2004. The resident's 16-year-old daughter had presented to a local healthcare facility on October 23, 2004, with diarrhea, vomiting, nausea, fever, chills, and abdominal cramps. The caller reported that other individuals who had also attended the reception had similar symptoms. No stools were collected for testing; however, the healthcare provider stated that 14 or 15 others at the reception had been seen between October 24th and 25th with similar symptoms. In addition, the local health department noted an increase in gastrointestinal cases (10 cases) during this period in the daily list of emergency room visits maintained by the local hospital. On October 28th, laboratory results revealed that three out of the ten suspected gastroenteritis cases at the local hospital were positive for *Salmonella*. Two of these individuals attended the wedding reception on October 22nd, while the third positive case reported attending a birthday party (quinceañera) on Saturday, October 23rd. Two other individuals also reported developing gastrointestinal symptoms after this party. Investigations revealed that this party was held within 24 hours of the wedding reception, at the same location and catered by the same company as the wedding reception. Attendees of the wedding reception were interviewed to identify a possible source for the *Salmonella* infections. Unfortunately, information on the birthday party could not be obtained. The county health department acquired a menu for the wedding, which included shredded beef (barbacoa), Spanish rice, beans, lettuce salad, salsa, ranch dressing, and corn tortillas. Of the 162 people who attended the wedding reception, the health department identified 57 that met the case definition for salmonellosis. Based upon interviews with 35 of the 57 ill, onset of illness was 7-72 hours after the wedding reception, suggesting a point source infection. Interviews were not able to pinpoint a specific contaminated food item, since ill attendees consumed various combinations of dishes. The Yuma County Environmental Health Department completed an inspection with the catering company for both events and did not find any reports of ill food handlers. Environmental health inspectors found that food preparation occurred in a non-commercial, unlicensed kitchen in the home of a catering company employee. In addition, the caterer did not have proper knowledge on food handling practices. Although no food was available for bacterial testing, the epidemiologic and environmental investigations suggest a high possibility of cross contamination among all of the food prepared for the wedding reception.

F. Norovirus Outbreak Among Conference Attendees, October – Maricopa County

On Tuesday, October 26, 2004, the Maricopa County Department of Public Health (MCDPH) received a phone call from emergency department staff at a local hospital stating that several persons with nausea, vomiting, diarrhea, and fever had sought treatment at their facility the prior evening; all patients were guests at a local resort/conference center. MCDPH staff initiated an outbreak investigation and began working closely with conference center staff. The facility reported approximately 500 national and international attendees to the conference, with 82 individuals reporting symptoms—80 attendees and two employees. MCDPH was able to obtain 2 stool specimens for testing, which tested positive for norovirus. Since attendees had returned home to various states and countries before interviews could be conducted, MCDPH chose to administer questionnaires via e-mail. This method yielded a fairly high return rate for cases; however, no controls completed the questionnaire. The major symptoms reported by attendees were nausea, vomiting, weakness, diarrhea, and anorexia. Since all of the resort meals were served buffet style with a large number of choices, an implicated food item could not be determined.

An inspection completed by MCEHS revealed that the facility had been compliant with recommendations to restrict ill food handlers until symptoms resolved. However, during the MCEHS inspection, it was noted that several food workers were absent in the days prior to the onset of illness among guests and that at least two of the absent food workers had symptoms suggestive of norovirus.

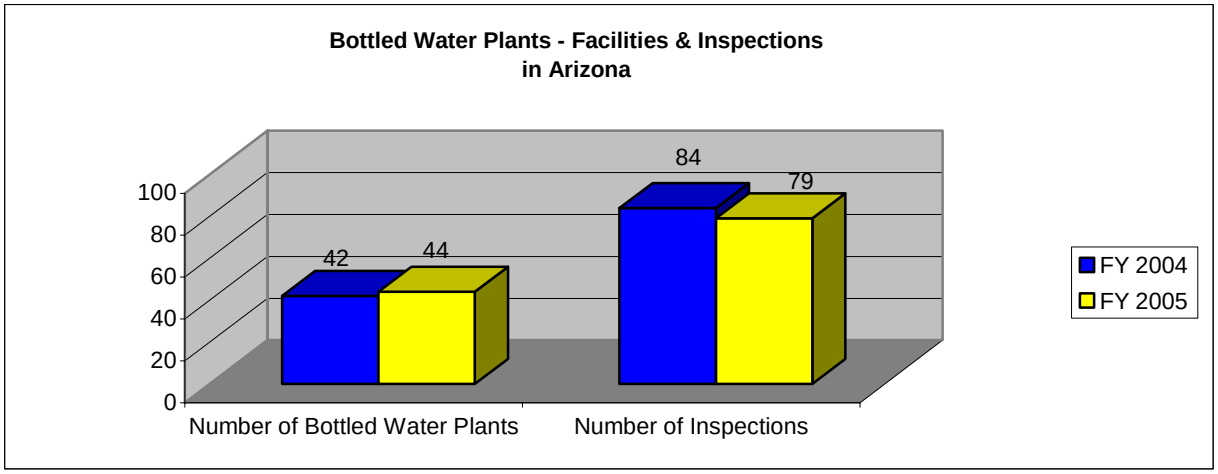
G. Norovirus Outbreak Among Diners at Popular Restaurant, December – Cochise County
On Monday, December 13, 2004, the Cochise County Environmental Health Division (CCEHD) received a call from the public stating that several people who had eaten at a popular, local restaurant on Thursday, December 9th, developed gastrointestinal symptoms. A second group of individuals also dining the same night called with similar complaints. County epidemiologists obtained a list of group members and initiated interviews. Of the 81 diners contacted by CCEHD, 35 had symptoms suggestive of norovirus infection. The health department was able to collect six stool specimens on patrons on December 15th; two were positively identified as norovirus. Analysis of interviews showed a significant association between consuming salad at the restaurant and developing gastrointestinal symptoms. In addition, CCEHD inspections found several violations in the kitchen of the restaurants. There were several discrepancies noted in the food handling processes of the salad. Salad greens had been washed in the hand sink, lettuce shipping boxes were reused to store washed lettuce, and salad bowls (which were wet stacked) filled with lettuce were stacked on top of each other, with the above bowl nested in the lettuce of the bowl below. Although the origin of norovirus in the salad is under question, analysis of interviews and inspection results firmly point to the salad as the source of the outbreak.

Probable Foodborne Illness Outbreaks

H. Norovirus Outbreak Among Inmates at Correctional Facility, November – Maricopa County
On November 12, 2004, the Office of Environmental Health (OEH) at ADHS received an incident report of several inmates ill with gastrointestinal symptoms at a correctional facility in Maricopa County. The report from a correctional officer described prisoners presenting with vomiting and diarrhea beginning about 11:55 pm on Wednesday, November 10, 2004. Shortly after receiving the report, staff from EHS traveled to the facility to interview prisoners and inspect the establishment. Of the 20 inmates interviewed, 16 reported gastrointestinal symptoms including vomiting and diarrhea. OEH requested stool specimens and submitted specimens for testing. In addition, frozen samples of the foods served at each dining period in the last 72 hours were obtained for bacterial testing. Numerous deficiencies were noted during the inspection, including the use of dirty, greasy wash water and no rinse water in the 3-compartment sink. Test results, follow-up interviews, and data analysis revealed the possibility of an infected food handler contaminating food served on Tuesday, November 9th. Stool cultures from inmates tested positive for norovirus. The ill kitchen worker had onset of stomach cramps and vomiting at 11:00 am on November 9th, approximately 36 hours prior to the onset of the majority of inmates. The food worker continued to work in the kitchen during the time he felt ill. No stool samples or tests were taken on this food worker. Interviews revealed that the sausage served for the lunch meal on Wednesday, November 10th was associated with illness. In addition, OEH staff noted that temperature control sheets obtained from the food service contractor indicated that the sausage had not been heated to the appropriate temperature.

2.2 Bottled Water

Facilities that bottle water for distribution in Arizona are routinely inspected to evaluate the sanitation practices. There were 44 bottled water facilities in Arizona in FY 2005. State and county sanitarians conducted 79 inspections in these facilities during FY 2005.

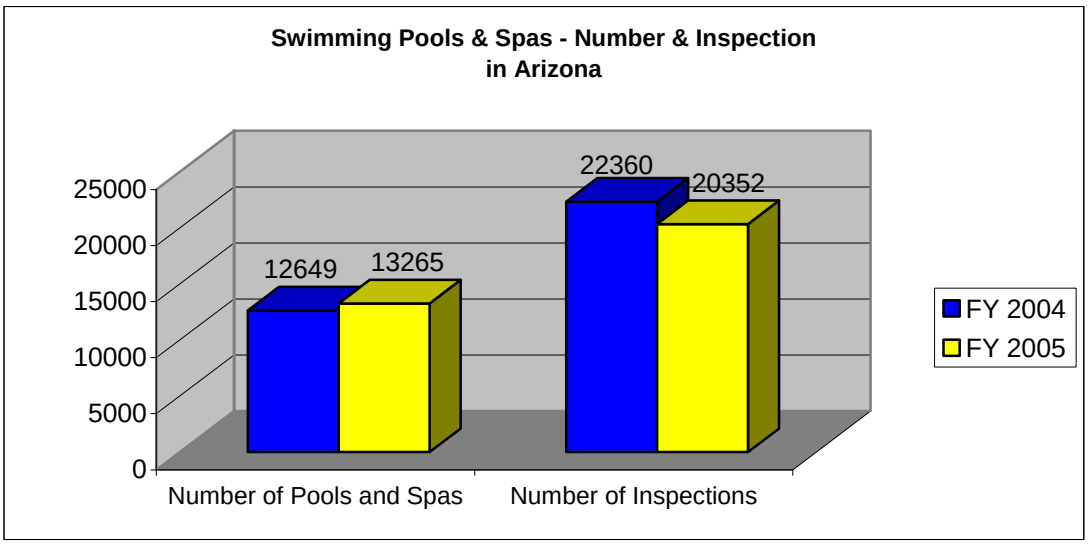


2.3 Bathing Places

Public and semipublic swimming pools and spas, as well as a few natural bathing places, are routinely inspected to evaluate whether these facilities are operated so that they prevent the spread of disease.

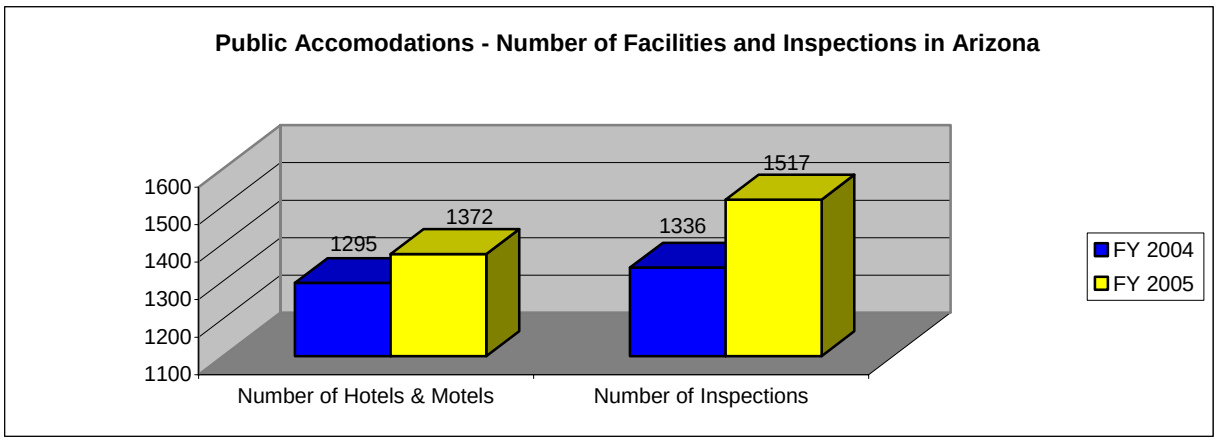
The rules apply only to the sanitary conditions of public and semipublic swimming pools and bathing places. A swimming pool or bathing place is "public" if it is open to members of the general public, regardless of whether a fee is charged for admission. A swimming pool or bathing place is "semipublic" if it is operated in conjunction with a lodging such as a hotel, motel, resort, apartment, townhouse or condominium complex, trailer court, mobile home park, or recreational vehicle park.

There were 13,265 public and semipublic swimming pools and spas in Arizona in FY 2005. State and county officials conducted approximately 20,352 bathing place inspections. State and county health departments implemented 559 enforcement actions at bathing places in FY 2005.



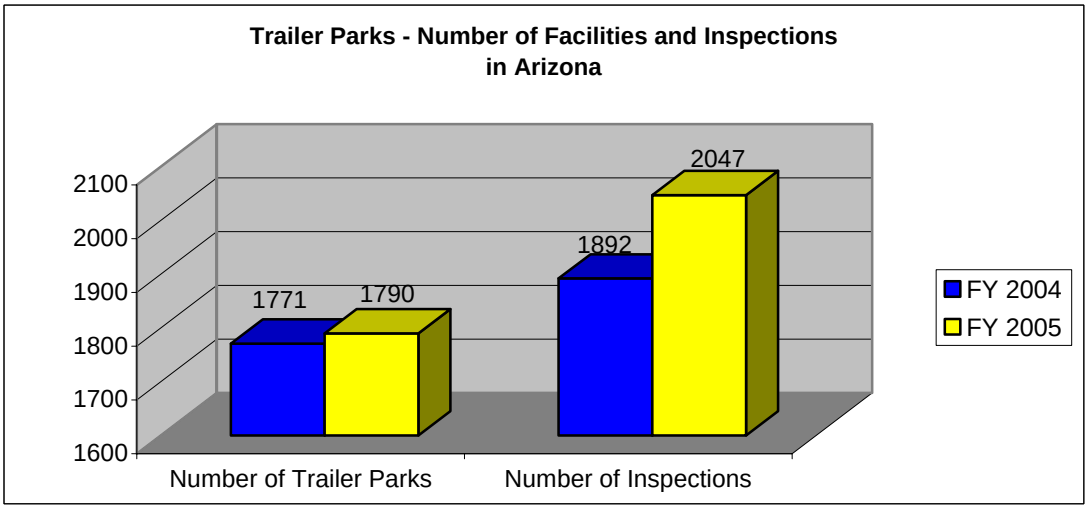
2.4 Public Accommodations

Public accommodations such as hotels, motels, and boarding houses are routinely inspected to evaluate sanitation practices. There were 1,372 public accommodations in Arizona in FY 2005. State and county sanitarians conducted 1,517 inspections in these facilities. There were no enforcement actions at public accommodations in FY 2005.



2.5 Trailer Coach Parks

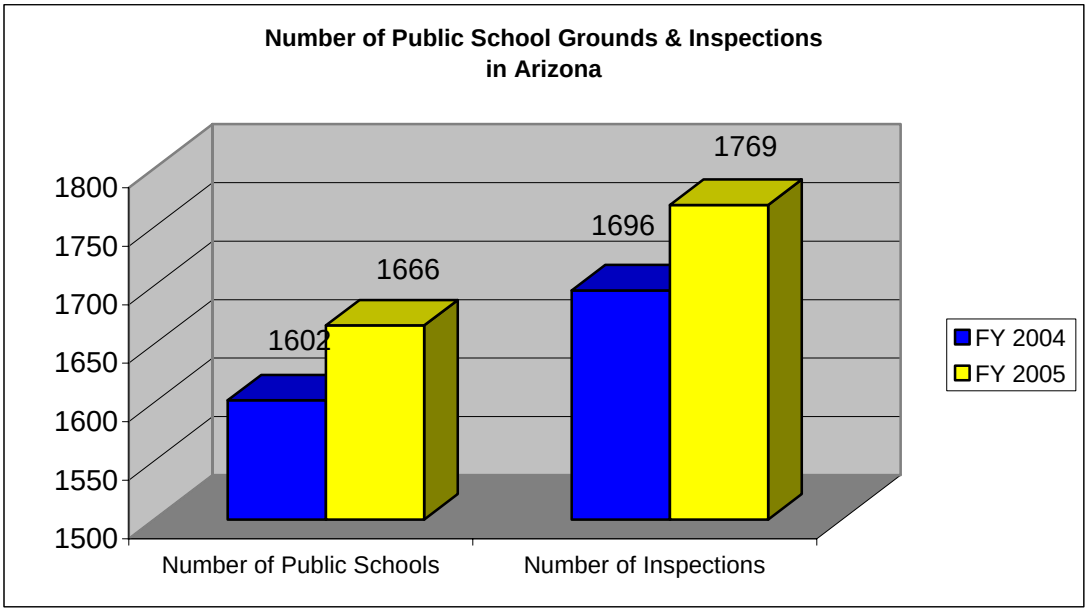
Trailer coach parks are routinely inspected for general sanitation practices including, but not limited to, garbage and trash removal, sewerage connections, and water and wastewater. There were 1,790 trailer parks in Arizona in FY 2005. State and county sanitarians conducted 2,047 inspections in these facilities. State and county health departments made 11 enforcement actions at trailer coach parks in FY 2005.



2.6 Public Schools

Public schools, including charter schools, are routinely inspected to determine whether they are in compliance with sanitation requirements. The inspections focus primarily on general sanitation including garbage and trash removal, drinking fountains, locker rooms, and restrooms. Cafeterias at the schools are considered food establishments and inspections are made under the food safety program (see Section 2.1).

In accordance with the five-year-review report approved by the Governor's Regulatory Review Council, ADHS is revising the public school sanitation rules. The proposed changes will make the rules consistent with current statutes, correct outdated citations to related administrative rules, make clear that the rules pertain only to public schools and conform to the rulemaking format and style requirements. The proposed rules will be filed with the Secretary of State in early FY 2006.



There were 1,666 public schools in Arizona in FY 2005. State and county sanitarians conducted 1,769 inspections in the schools. State and county health departments implemented 1 enforcement action at public schools in FY 2005.

2.7 Children's Camps

Children's camps are routinely inspected to determine if they are in compliance with sanitation and food safety requirements. The inspections focus primarily on general sanitation including garbage and trash removal, locker rooms, restrooms, and sleeping quarters. Inspections are also conducted at the food service kitchens. Inspections for children's camps are tracked by annual year rather than by fiscal year since the camps are open seasonally in the summer months of June to September. Tracking by annual year allows for more effective management of children's camp inspections.

There were 46 children's camps that applied for an annual permit. Most of the camps are located in Yavapai and Gila counties. Some of the camps operate for several months during the summer, while others may operate for only a few days.

Seventeen (17) inspections of children's camps where conducted during FY 2005. There was one (1) enforcement action taken at a children's camp in FY 2005.

2.8 Campgrounds

Campgrounds are routinely inspected to determine if they are in compliance with sanitation requirements. The inspections focus primarily on general sanitation which includes garbage and trash removal,

restrooms, and grounds. During FY 2005 20 inspections were conducted at the 23 campgrounds in Arizona.

3.0 Points of Interest

County and state Registered Sanitarians and Sanitarian Aides provided West Nile Virus emergency response services and related activities during FY 2005. Despite the added workloads and assignments in this important activity, inspection frequencies were maintained consistent with previous years during FY 2005.

4.0 Registration and Training of Sanitarians

Arizona law requires an individual shall not be employed as a sanitarian by the State or any political subdivision of the State unless that person is registered by ADHS as a sanitarian. The director of ADHS appoints members to serve on the Arizona Sanitarian's Council. The Council provides for the classification of sanitarians, standards for sanitarians, and provides for the examination of applicants for registration as sanitarians. During FY 2005, 47 applications were received and 44 of those were accepted by the Council to take the examination. Of those 44 applicants, 29 passed the examination and became registered as sanitarians. Four hundred seven (407) current Arizona Registered Sanitarians renewed their registration for calendar year 2005.

Individuals responsible for carrying out the provisions in the ADHS delegation agreement must be registered as a sanitarian in the State of Arizona or, under specific conditions, a Sanitarian Aide under the direct supervision of an Arizona Registered Sanitarian. There were 163.5 Registered Sanitarians employed at the 15 Arizona county health departments and ADHS involved in ADHS delegated activities.

Trainings Offered for Registered Sanitarians

Apache and Navajo counties presented a daylong Agroterrorism Conference on September 28, 2004 in Hon Dah, Arizona

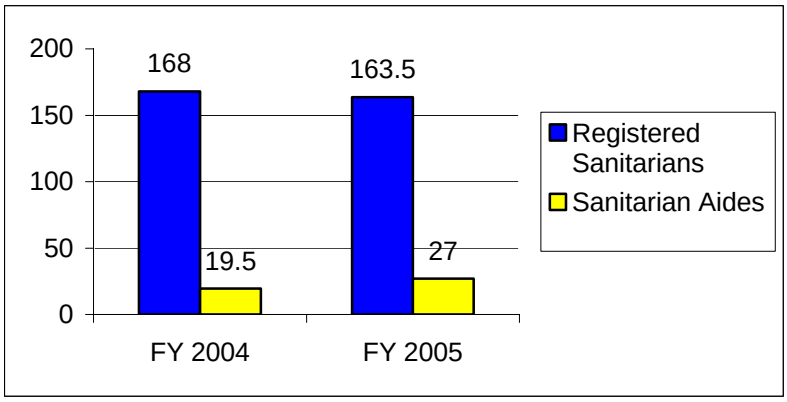
The Arizona County Directors of Environment Health Services Association and the Arizona Environmental Health Association presented the two-day Southwest Food Safety Summit on February 16 –17, 2005 in Laughlin, Nevada.

ADHS presented the three-day 5th Annual Joint Vector-Borne/Zoonotic Diseases and Bioterrorism/Public Health Threats Conference on May 12 –14, 2005 in Mesa, Arizona

The U.S. Food and Drug Administration presented a 3-day *Food Code Course* for Arizona Registered Sanitarians on May 24 -26, 2005 in Phoenix, Arizona.

Number of Sanitarians and Sanitarian Aides Employed and Handling ADHS Delegated Duties by Jurisdiction in FY 2005

Jurisdiction	Sanitarians	Sanitarian Aides
ADHS/ASU	8.5	0
Apache	1	0
Cochise	8	1
Coconino	6	1
Gila	3	1
Graham	1	0
Greenlee	1	1
La Paz	3	1
Maricopa	83	9
Mohave	8	3
Navajo	1	1
Pima	20	2
Pinal	8	2
Santa Cruz	4	2
Yavapai	3	3
Yuma	5	0
Total	163.5	27



5.0 Summary

- Representatives from the 15 Arizona county health departments and ADHS conducted 97,322 inspections at 48,490 regulated facilities during FY 2005.

- There were 30,313 food establishments in Arizona in FY 2005. 71,492 food safety inspections, i.e., routine, re-inspection, and pre-operational, were conducted at these establishments.

- Sixty-five Arizona Registered Sanitarians and food safety personnel completed the three-day U.S. Food and Drug Administration Food Code Course enhancing food safety capacity and knowledge in Arizona.

Appendix

Jurisdiction activity by type	Apache	Cochise	Coconino	Gila	Graham	Greenlee	La Paz	Maricopa
Food Establishments								
Current number of food establishments	123	768	999	376	155	49	207	18559
Limited	36	306	302	113	62	9	85	7231
Moderate	32	97	176	111	27	10	35	5562
Complex	55	365	521	152	66	30	87	5766
Number of routine inspections	118	1813	1874	508	119	79	367	43,037
Number of reinspections	7	237	772	33	0	2	68	3283
Number of pre-operational inspections	0	270	289	30	13	1	17	3475
Number of foodborne illness complaints	2	21	47	3	4	8	7	150
Number of non-foodborne illness complaints	1	121	172	19	12	0	8	2951
Number of compliance proceedings	0	1	8	0	0	0	6	719
Number of food items detained/embargoed	0	2019	17	0	0	1	0	86,393
Number of temporary food establishment inspections	18	332	337	91	38	34	288	2403
Outreach								
Number of presentations	0	76	64	9	11	22	52	34
Number of participants/audience	0	1140	3972	74	155	334	940	1685
Number of consultations/counseling provided	235	2684	1861	77	2	79	350	513
Number of media contacts	0	0	4	4	1	2	3	60
Non-food related activities								
Public & semi-public bathing places	4	107	225	24	19	2	22	9359
Routine inspections	2	415	180	26	13	4	177	12627
Complaint inspections	0	17	8	2	0	0	0	296
Enforcement actions	0	1	0	0	0	1	4	53
Trailer coach parks	0	100	88	0	11	6	201	530
Routine inspections	0	94	101	0	8	6	209	605
Complaint inspections	0	26	9	0	0	1	6	71
Enforcement actions	0	3	0	0	0	0	3	2
Public school grounds	0	129	44	0	*	4	16	1026
Routine inspections	0	129	95	0	*	4	16	1006
Complaint inspections	0	0	12	0	*	0	1	59
Enforcement actions	0	0	0	0	*	0	0	1
Camp grounds	0	1	14	0	0	0	5	0
Routine inspections	0	1	14	0	0	0	4	0
Complaint inspections	0	0	1	0	0	0	0	0
Enforcement actions	0	0	0	0	0	0	0	0
Children's camps	3	0	*	8	1	0	0	0
Routine inspections	0	0	*	0	0	0	0	0
Complaint inspections	0	0	*	0	0	0	0	0
Enforcement actions	0	0	*	0	0	0	0	0
Public accommodations	32	87	189	42	10	3	23	443
Routine inspections	27	81	186	42	1	2	42	498
Complaint inspections	0	5	19	0	0	0	1	44
Enforcement actions	0	0	0	0	0	0	0	0
Bottled water	0	0	2	0	0	0	1	29
Routine inspections	0	0	2	0	0	0	1	56
Complaint inspections	0	0	0	0	0	0	0	4
Enforcement actions	0	0	0	0	0	0	0	0

* Performed by ADHS

Appendix

Jurisdiction activity by type	Mohave	Navajo	Pima	Pinal	Santa Cruz	Yavapai	Yuma	ADHS/ASU
Food Establishments								
Current number of food establishments	1093	592	4054	801	310	1117	625	484
Limited	353	152	797	232	111	213	211	174
Moderate	499	312	1900	378	64	469	149	119
Complex	241	128	1357	191	135	435	265	192
Number of routine inspections	1063	456	6287	1219	418	1839	1402	772
Number of reinspections	110	12	117	53	69	136	91	56
Number of pre-operational inspections	155	32	285	148	12	190	118	40
Number of foodborne illness complaints	25	0	101	41	0	0	13	2
Number of non-foodborne illness complaints	24	0	484	108	4	60	18	3
Number of compliance proceedings	2	0	42	0	0	0	0	0
Number of food items detained/embargoed	0	0	0	4	0	0	2	0
Number of temporary food establishment inspections	24	60	1131	408	0	107	107	130
Outreach								
Number of presentations	156	2	25	6	23	229	15	4
Number of participants/audience	4045	100	1251	176	159	4145	2832	44
Number of consultations/counseling provided	200	30	0	101	1	185	16	62
Number of media contacts	12	1	12	1	0	0	18	0
Non-food related activities								
Public & semi-public bathing places	248	37	2500	263	37	188	215	15
Routine inspections	182	37	3900	1302	53	453	395	111
Complaint inspections	6	0	117	14	0	7	8	0
Enforcement actions	0	10	488	0	0	0	0	2
Trailer coach parks	85	43	426	69	21	0	210	0
Routine inspections	73	3	376	45	20	0	383	0
Complaint inspections	1	3	5	0	0	0	2	0
Enforcement actions	0	3	0	0	0	0	0	0
Public school grounds	43	26	232	0	29	51	56	10
Routine inspections	14	44	204	0	23	44	101	10
Complaint inspections	2	0	2	0	0	3	0	0
Enforcement actions	0	0	0	0	0	0	0	0
Camp grounds	2	0	0	1	0	0	0	0
Routine inspections	0	0	0	1	0	0	0	0
Complaint inspections	0	0	0	0	0	0	0	0
Enforcement actions	0	0	0	0	0	0	0	0
Children’s camps	1	7	0	2	1	16	0	7
Routine inspections	1	4	0	2	1	1	0	7
Complaint inspections	0	0	0	0	0	0	0	1
Enforcement actions	0	0	0	0	0	0	0	0
Public accommodations	82	78	181	31	19	112	40	0
Routine inspections	104	0	165	29	30	147	61	0
Complaint inspections	7	0	9	4	0	11	3	0
Enforcement actions	0	0	0	0	0	0	0	0
Bottled water	3	2	3	1	1	2	0	0
Routine inspections	5	4	0	0	1	6	0	0
Complaint inspections	0	0	0	0	0	0	0	0
Enforcement actions	0	0	0	0	0	0	0	0